

What is claimed is:

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1. A trocar comprising:

a cannula for receiving an implant and inserting the implant into an animal;

a spring element received within the cannula, the spring element having a leaf spring for retaining the implant inside the cannula, the leaf spring applying a frictional force against the implant sufficient to prevent the implant from sliding out of the cannula under a weight of the implant; and

an obturator for delivering the implant from the cannula into the animal.

2. The trocar according to claim 1, wherein the spring element includes a plate which is cut to form the leaf spring.

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3. The trocar according to claim 1, wherein the leaf spring is formed as a T-shaped cut out portion.

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4. The trocar according to claim 1, wherein the leaf spring has a plurality of successive bends and the successive bends are arranged to alternately contact an inside wall of the cannula and an outside of the implant to retain the implant in the cannula.

5. The trocar according to claim 4, wherein the leaf spring has a longitudinal leg arranged substantially parallel to an axis of the cannula and a cross leg substantially perpendicular to the longitudinal leg, and the plurality of successive bends are formed on the longitudinal leg.

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1 6. The trocar according to claim 4, wherein the leaf spring having the
2 plurality of successive bends is compressed in a radial direction of the cannula by
3 the insertion of the implant into the cannula.

1 7. The trocar according to claim 1, wherein the obturator has a
2 tapered distal end to prevent ejection of the spring element from the cannula
3 when the obturator is moved distally to eject the implant from the cannula.

8. The trocar according to claim 1, wherein the spring element is
fixed within the cannula.

9. A trocar comprising:
a substantially cylindrical cannula body;
a distal end of the cannula body having a leading edge formed by a
first plane which is at a first angle with respect to a longitudinal axis of the
cannula body, and a trailing edge formed by a second plane which is at a second
angle with respect to the longitudinal axis of the cannula body; and
wherein the first angle of the leading edge is larger than the
second angle of the trailing edge

1 10. The trocar according to claim 9, wherein a transition between the
2 first plane and the second plane is gradual.

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1 11. The trocar according to claim 9, wherein the trailing edge of the
2 cannula body distal end is radiused to prevent coring or tearing of tissue.

1 12. The trocar according to claim 9, wherein the first angle is about
2 20 - 35 degrees and the second angle is about 10 - 25 degrees.

1 13. The trocar according to claim 9, wherein a difference between the
2 first angle and the second angle is about 2 - 20 degrees.

1 14. The trocar according to claim 9, wherein the leading edge of the
2 cannula distal end has a reverse grind extending along between 25 and 75 percent
3 of an exterior circumference of the cannula.

1 15. The trocar according to claim 14, wherein the reverse grind is a
2 surface which intersects an interior surface of the cannula and an exterior surface
3 of the cannula.

1 16. The trocar according to claim 15, wherein a distal most tip of the
2 cannula is located at the intersection of the interior surface and the reverse grind.

1 17. The trocar according to claim 9, wherein the cannula body
2 includes a leaf spring fixed within the cannula body for retaining an implant.

1 18. A method of implanting an implant in an animal comprising:
2 positioning an implant at a preferred location within a cannula
3 with a forward end of the implant located between about $\frac{1}{3}$ and $\frac{2}{3}$ of the way
4 between a leading edge of the cannula and a trailing edge of the cannula;
5 holding the implant at approximately the preferred location while
6 inserting the cannula into the animal; and
7 delivering the implant from the cannula into the animal.

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